

MURATOV, Ye.A.; TSVILENEVA, V.A.

Cases of finding erythrocytes of cattle in the body cavity of engorged ticks. Dokl. AN Tadzh. SSR 3 no. 4: 35-38 '60. (MIRA 14:4)

1. Institut zoologii i parazitologii im. akad. Ye. N. Pavlovskogo,  
AN Tadzhikskoy SSR. Predstavleno chlenom-korrespondentom AN  
Tadzhikskoy SSR M. N. Narzikulovym.  
(Erythrocytes) (Ticks)

TSVILENEVA, V.A.

Morphology of connective tissue in ixodid ticks. Trudy Inst. zool.  
i paraz. AN Tadzh. SSR 24:171-177 '63.

(MIRA 17:11)

1. Institut zoologii i parazitologii imeni akademika Pavlovskogo  
AN Tadzhikskoy SSR.

TSVILENEVA, V.A.; MASHANSKIY, V.F.

Structure of the cuticle in some ixodid ticks. Izv. AN SSSR.  
Ser. biol. no.5:787-792 S-O '65. (MIRA 18:9)

1. Institut zoologii i parazitologii AN Tadzhikskoy SSR,  
Dushanbe.

TSVILEMENA, V.A. (Dushanbe, 24, ul. Popova, 3, kv. 17)

Porous connective tissue of Ixodes ticks. Arkh. anat.  
gist. 1 embr. 41 no. 12:79-88 D '61. (MIRA 15:3)

1. Otdel parazitologii (zav. - Ye. A. Muratov) Instituta  
zoologii i parazitologii AN Tadzhikskoy SSR.  
(CONNECTIVE TISSUES)  
(TICKS)

TSVILENEVA, V.A. (Stalinabad, 24, Subtropicheskaya ul., d.3,kv.17)

Comparative histology of the blood and connective tissue. Form  
elements in the hemolymph of Ixodes ticks. Arkh. anat. gist. i  
embr. 40 no.6:91-100 Je '61. (MIRA 15:2)

1. Otdel parazitologii (zav. - kand.veterinarnykh nauk Ye.A.Muratov)  
Instituta zoologii i parazitologii AN Tadzhikskoy SSR.  
(TICKS) (HEMOLYMPH)

GA  
TSVILIKHOVSKAYA, Ye. Ye.

Influence of sodium salicylate on the secretion of the fundus glands. E. E. Trivikhovskaya. *Vsesoyuznii Inst. Eksp. Med., K Narko-Ismeral'noi Regulatsii Sekretov Zheludka* (Moscow) 1936, 237-53 (English summary).—Addn. of 100 cc. of a 7% soln. of Na salicylate to a bread or meat meal to dogs with Pavlov stomach pouches increased the gastric secretory response as compared with the response to the foods alone. Oral administration of the same quantity of the drug 3 hrs. before the meal decreased the quantity of juice secreted as well as the duration of secretory activity. Prolonged daily administration of the drug (75 cc. of a 7% soln. before the morning meal) also markedly decreased the amt. and duration of secretory activity in response to bread or meat as well as total acidity and free HCl. The effect persisted for a few days after the administration of the drug was discontinued. Na salicylate produced the same effect on a dog which showed a spontaneous gastric secretion ascribed to an ulcer in the Pavlov pouch. In this dog the drug produced a decrease in secretion even when given simultaneously with the meal. No pathol. histological changes of the gastric mucosa were observed after prolonged administration of a 7% soln. More concd. solns. (15-30%) produced some pathol., presumably reversible, changes. S. A. C.

TSVILIKHOVSKAYA, <sup>V</sup>E. Ye.

Tsvilikhovskaya, E. Ye. - "Vitamin K and prothrombin in the internal illnesses clinic," Vracheb. delo, 1949, No. 2, columns 125-30

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

TSVILIKHOVSKAYA, Ye. Ye.; BESLEKOV, T. I.; MAYAT, V. S.

Hypertension and coronary circulation; experimental investigation. Uchen. zapiski vtor. moskov. med. Inst. Stalina 1:128-132 1951. (CLML 21:3)

1. Professor for Volin, Doctor Medical Sciences for Tsvilikhovskaya and Mayat, and Candidate Medical Sciences for Beslekoyev.



TSVILIN, V.

PA 4/49T77

USSR/Radio Equipment  
Antennas, Vertical

Apr 48

"The Vertical Antenna," V. Tsvilin,  $\frac{1}{4}$  p

"Radio" No 4

Reports the excellent service which station UA3GI was able to obtain from the use of a vertical antenna, described in "Radio" No 7, 1947.

FDB

4/49T77

1. Sullivan, R. Y. A.

1. Sullivan, R. Y. A.  
Marked and A. Y. A. Sullivan, R. Y. A.

MARKH, A.T., doktor tekhn.nauk, prof.; TSVILING, A.Ya., kand.tekhn.nauk,  
dtsent.

Processes of melanoidin formation in tomato and grape juices. Trudy  
OTIPiKhP 9 no.2:21-25 '59. (MIRA 13:9)

1. Kafedra biokhimii i mikrobiologii Odesskogo tekhnologicheskogo  
instituta pishchevoy i kholodil'noy promyshlennosti.  
(Tomato juice) (Grape juice) (Melanoidin)

TSVILING, A.Ya., kand.tekhn.; TERTILOVA, A.G., inzh.

Determination of lead in canned foods by chromatographic semimicro-  
analysis. Trudy OTIPiKhP 9 no.2:149-153 '59. (MIRA 13:9)  
(Food, Canned) (Lead-- Analysis)

TSVILING, A.Ya.; BONEVA, L.A.

Objective methods of quality inspection of tomato products.  
Kons.i cv.prom. 17 no.6:39-41 Je '62. (MIRA 15:5)

1. Odesskiy tekhnologicheskii institut pishchevoy i kholodil'noy  
promyshlennosti.

(Tomato products--Testing)

TSVILLING, M.Ya.; YAKHONTOV, Yu.A.; ISKRITSKAYA, L.I.; MOLODETS, V.N.;  
YEVSIN, A.D.; BLEDMKV, A.I., dotsent, kand.voyenno-morskikh  
nauk, kapitan 1 ranga, red.; KRUPENNIKOVA, I.A., red.;  
YAKIMOVICH, Yu.K., red.-leksikograf; KUZ'MIN, I.P., tekhn.red.

[German-Russian naval dictionary] Nemetsko-russkii voyenno-morskoi  
slovar'. Sost.M.IA.TSvilling i dr. Pod obshchei red. A.I.Bledneva.  
Moskva, Voen.izd-vo M-va obr.SSSR, 1961. 456 p.

(MIRA 14:3)

(German language--Dictionaries--Russian)  
(Naval art and science--Dictionaries)



SUBMITTED: 00

ENCL: 00

SUB CLERK: MM

NO REF SOV: 000

OTHER: 000



PANCHENKO, Yelena Vasil'yevna, dots.; SKAKOV, Yuriy Aleksandrovich, dots.; KRIMER, Boris Isaakovich, dots.; ARSENT'YEV, Petr Pavlovich, dots.; TSVILING, Mira Yakovlevna, assistant; POPOV, Konstantin Viktorovich, dots.; Prinimala uchastiya: SHARSHATKINA, A.V.; LIVSHITS, B.G., doktor tekhn. nauk, prof., red.

[Metallographic laboratory] Laboratoriia metallografii.  
Moskva, Metallurgiya, 1965. 439 p. (MIRA 18:9)

PENCHEV, I., D-r.; TSVINEROVA, Kh., d-r.

~~Rauwolfia serpentina~~ alkaloid therapy of hypertension. Suvrem. med., Sofia  
8 no.10:25-31 1957.

1. Iz Okoliiskia institut na narodnoto zdrave v gr. Varnsdorf.--  
Chekhoslavakia Vutreshno otdelenie. (Direktor: d-r I. Penchev).  
(RAUWOLFIA ALKALOIDS, therapeutic use,  
hypertension (Bul))

TSVIRENKO, V.M., inzh.

Laying 25-meter sections with tractor-type gantry track layers.  
Transp. stroi. 12 no.6:11-12 Je '62. (MLRA 15:6)  
(Railroads--Tracklaying machinery)

CHAPLINSKIY, M.B.; SVERDLOV, A.K.; SHLYGINA, K.N.; BELYAYEV, P.A.; DEKHOV,  
T.Ya.; VINOGRADOVA, P.A.; TSVIRKO, A.B.; VIGIN, Ye.A.; AGAFONOV, A.I.

Outbreak of an anginous form of erysipeloid. Zhur. mikrobiol., epid.  
i immun. 41 no.12:119 D '64. (MIRA 18:3)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

137/KKQ, G L

USSR/ Engineering = Drawing dies

Card 1/1 Pub. 103 - 3/22

Authors : Tavirko, G. L., and Sheleshnev, A. A.

Title : Working of splined cylinders

Periodical : Stan. i instr. 6, 8-11, June 1955

Abstract : Methods of drawing external splines on spinning machine shafts by means of drawing the shaft through a special die made of 3Kh12M (Kh12T; Kh12F1) construction steel. The die consists of two parts; a cylinder, and a press-fit (in hot state) ring with internal splines. The drawing of splines can be performed on vertical or horizontal presses and on drawing lathes, at pressures not exceeding 20 tons, and working feeds of from 550-600 mm. Drawings.

Institution : .....

Submitted : .....

SMOLIYAK, L.P.; OSTROGLAZOV, V.A.; BARKAN, V.A., red.; TSVIRKO, K.A.,  
red.; YERMILOV, V.M., tekhn.red.

[Improvement of forest bog and swampy soils by small-scale  
drainage network] Melioratsia lesnykh bolot i zabolochennykh  
zemel' melkoi osushitel'noi set'iu. Minsk, Izd-vo Akad.sel'khoz.  
nauk BSSR, 1960. 20 p. (MIRA 14:12)  
(Drainage)

TSVIRKO, M. N.

Colophony reaction of cerebrospinal fluid and its comparison with other colloidal reactions. M. N. Tsvirko. *Sbornik Nauch. Rabot. Minsk. Med. Inst.* 13, 39-7 (1954). Referat. *Zhur., Khim.* 1954, No. 24730.—A reaction for the investigation of pathol. cerebrospinal fluid (I) is presented by making use of a sol of colophony (II). Three g. II is dissolved in 100 ml. abs. alc.; to this soln. is added 100 ml. distd. water at 65-75°. The I is dild. with different amts. of 0.3% NaCl soln. before use. One ml. of the II sol is added to a sample of the dild. I and after 24 hrs. the result of the reaction is estd. by application of a 4-point grading system. The application of this reaction to identify different diseases of the central nervous system was compared with other colloidal reactions (Au sol, paraffin, and HgCl<sub>2</sub>-fuchsin). It is concluded that the reaction with the II sol may differentiate certain kinds of nervous disturbances and is more useful than other colloidal reactions. E. Wierbicki.

TSVIRKO, M.N.,

TSVIRKO, M.N., Cand Med Sci — (diss) "Reaction of fluid with Congo-Red in the diagnosis of meningitis." Minsk, 1958. 16 pp (Minsk State Med Inst). 200 copies (KL, 20-58,102)



FILIPPOVICH, A.N.; KLYUCHAREV, A.A.; TSVIRKO, M.N.; MEYTES, L.G.

Clinical toxicoinfection of *Salmonella* etiology. Zdrav.Belor.  
5 no.8:42-44 Ag '59. (MIRA 12:10)

1. Iz kliniki infektsionnykh bolezney (zaveduyushchiy - prof.  
A.N.Filippovich) Minskogo meditsinskogo instituta.  
(*SALMONELLA* TYPHIMURIUM) (FOOD POISONING)

SEVER'YANOV, N.N., kand. tekhn. nauk, red.; BERLIN, A.Ye.,  
retsenzent; VOYTSEKHOVSKIY, G.A., retsenzent;  
DAVYDOVA, Ye.A., retsenzent; ZIL'BERSHTEYN, Ya.Yu.,  
retsenzent; KIRICHINSKIY, N.R., retsenzent; KLEPIKOV,  
L.N., retsenzent; KUBYNIN, A.Ye., retsenzent; LEBEDEV,  
V.V., retsenzent; MOROZOV, V.P., retsenzent; MOSKVIN,  
V.B., retsenzent; MUSARSKIY, I.S., retsenzent; PODERNI,  
Yu.S., retsenzent; SALIKOV, I.A., retsenzent; SUSHCHENKO,  
A.A., retsenzent; TRET'YAKOV, K.M., retsenzent; UL'YANOV,  
V.P., retsenzent; TSVIRKO, P.P., retsenzent; TSOY, A.G.,  
retsenzent; CHEL'TSOV, M.I., retsenzent; SHISHCHITS, G.N.,  
retsenzent; DIDKOVSKIY, D.Z., otv. red.

[Handbook on the prospecting, planning, and construction  
of strip mines] Spravochnik po izyskaniyam, proektirovaniyu  
i stroitel'stvu kar'erov. Moskva, Nedra, 1964. 2 v.  
(MIRA 18:2)

SLAVUTSKIY, Samuil Oyzerovich; ANTONOV, Vladimir Alekseyovich;  
TSVIRKO, Pavel Pavlovich. Prinimal uchastiye LIPMAI,  
A.A., inzh.

[Open pit hydraulic mining operations] Otkrytye gornye ra-  
boty gidravlicheskim sposobom. Moskva, Nedra, 1965. 226 p.  
(MIRA 18:10)

3(5)

SOV/11-59-9-10/18

AUTHOR: Tsvirko, V.F.

TITLE: Xenoliths in Dioritic Porphyrite Dykes of Eastern Verkhoyan'ye

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 9, pp 91-93 (USSR)

ABSTRACT: The author describes dioritic porphyrite dykes which were found in the Dyba polymetallic zone, on the territory of the South-Verkhoyansk synclinorium. These dykes contain xenoliths of effusive and metamorphic rocks not found in the region. The author explored the region and made a petrographic study of these xenoliths together with Ye.N. Rodionova and S.V. Domokhotov. In one place the dioritic porphyrites intersect a 18-20 m thick dyke of granite-porphyres. As a result of a contacting metamorphosis, the granite-porphyrites acquired an aplitic and microgranitic structure and the dark colored minerals of pheno-

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Xenoliths in Dioritic Porphyrite Dykes of Eastern Verkhoyan'ye

crysts were chloritized and muscovitized. Dioritic porphyrites form a massive greenish-grey rock, its structure conditioned by the presence of plagioclase and complex pseudomorphic phenocrysts among the porphyric secretions of dark colored components. As said, the characteristic feature of these dykes is the occurrence of xenoliths of acidic, basic and hybrid effusive rocks. Their detailed description is given. According to the author, these xenoliths give an indirect indication of the structure of the ancient foundation of the South-Verkhoyansk **synclinorium**.

ASSOCIATION: Aldanskoye rayonnoye geologorazvedochnoye upravleniye, pos. Khandycha, Yakutskaya ASSR (the Aldan rayon geologo-exploratory Directorate, village Khandycha, Yakutskaya ASSR)

SUBMITTED: 12 July 1958  
Card 2/2

TSVIRKO, V.F.

Xenoliths in dikes and dike-like bodies of diorite-porphyrites and  
granodiorite-porphyrites. Geol. i goefiz. no.11:102-105 '62.  
(MIRA 16:3)

1. Yakutskoye territorial'noye geologicheskoye upravleniye.  
(Xenoliths) (Dikes (Geology))

TSVIRKO, V. K., Doc Med Sci (diss) -- "The relationship of the bronchio-vascular elements of the roots and adjacent zones of the lungs of man under normal conditions". Moscow, 1957. 16 pp (Acad Med Sci USSR), 200 copies (KL, No 13, 1960, 122)

TSVIRKO V. K.

35458. Ō dolevoy topografii legkikh.

Letopis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949



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S/056/60/038/005/055/057/XX  
B006/B070

24.3200

AUTHOR:

Tsvirko, Yu. A.

TITLE:

A Relation Between the Structure of Exciton Bands and the Natural Optical Activity of Crystals

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960.  
Vol. 38, No. 5, pp. 1615 - 1619

TEXT: S. I. Pekar showed (Ref. 1) that if the space dispersion of the electromagnetic wave is considered in a crystal in which excitons occur, a new solution of the Maxwell equations exists which differs essentially from the solutions so far known in the region of light frequencies in the neighborhood of the exciton absorption frequency. For the exciton energy  $\xi(\vec{k})$  in the vicinity of  $\vec{k} = 0$ , Pekar proposed the following expansion:

$\xi(\vec{k}) = \xi_0 + \frac{\hbar^2}{2} \sum_{ps} M_{ps}^{-1} k_p k_s + \dots$ . When an electromagnetic wave is propagated along the principal axis of a uniaxial crystal, only those exciton states make a contribution to the specific polarization which are in the neighborhood of a degenerate band. It is shown in the present paper that

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A Relation Between the Structure of Exciton  
Bands and the Natural Optical Activity of  
Crystals

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the degenerate energy surfaces for crystals with the symmetry groups  $D_4^3$ ,  $D_3^4$ ,  $D_3^6$ , ... intersect at the point  $\vec{k}=0$  in the direction of the principal optic axis. From this it follows that also terms linear in  $\vec{k}$  occur in  $\epsilon(\vec{k})$ . A consideration of these terms for the intersection of the  $\epsilon(\vec{k})$  surface leads to a form of relationship between specific polarization and electric field different from Pekar's form, and resulting in a rotation of the plane of polarization of light in the crystal. By exciton an arbitrary excited state in the crystal is understood whose wave function may be characterized by a continuous quantum number  $\vec{k}$  and which transforms under a symmetry operation as a single-valued irreducible representation of a space group. The dimensionless wave vector  $\vec{k} = (0,0,k)$  with  $-\pi \leq k \leq \pi$ , is used for simplicity. First, the structure of a doubly degenerate exciton band of a uniaxial crystal in the direction of the principal optic axis is studied; then the propagation of a plane electromagnetic wave in a uniaxial dielectric crystal in the same direction is considered. The formula obtained for the rotation of the plane of polarization of light differs from the analogous formula of V. M. Agranovich and A. A. Rukhadze (Ref. 8)

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A Relation Between the Structure of Exciton  
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Crystals

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obtained semiphenomenologically, and also from Chandrasekhar's empirical formula (Ref. 9). The origin of these differences is discussed, and it is pointed out that Agranovich in Ref. 10 has derived a relation without considering the intersection of the exciton bands, which has the same form. Finally, the determination of the refractive indices of the right and left circularly polarized waves is dealt with. V. L. Ginzburg has derived in a phenomenological way a function which agrees qualitatively with the function  $n(\omega)$  obtained by the author. There are 1 figure and 11 references: 6 Soviet, 1 Indian, 3 US, and 1 German.

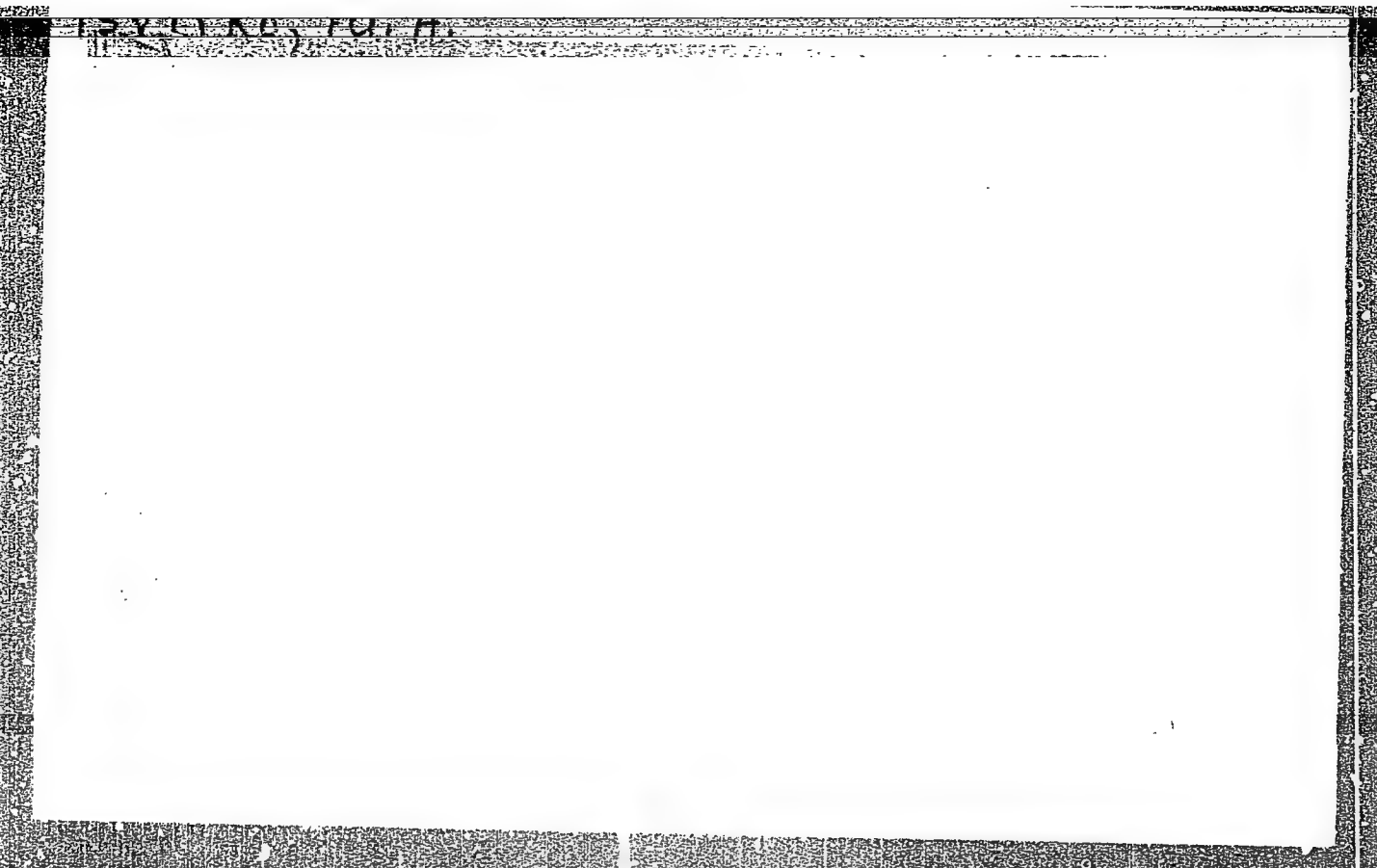
ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiyev State University)

SUBMITTED: December 18, 1958 (initially) and December 22, 1959 (after revision)

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S/181/61/003/005/013/042  
B101/B214

34,7100(1136,1142,1160)  
9.3700(1057,1163,1482)

AUTHORS: Tsvirko, Yu. A., and Tolmazina, M. A.

TITLE: Boundary conditions for electromagnetic waves on the surface of optically active crystals

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1393 - 1399

TEXT: A system of equations was set up by Professor S. I. Pekar (ZhETF, 33, 1022, 1957; ibid., 34, 1176, 1958) for the calculation of the amplitudes of normal and anomalous electromagnetic waves in crystals. Starting from these equations the present paper investigates the propagation of electromagnetic waves along the principal optic axis of a uniaxial optically active crystal and deals with the determination of the additional boundary conditions on the assumption that the excitation of the crystal is due to Frenkel excitons. The crystal possesses a  $D_4^{(2)}$  symmetry with a screw axis of the 4th order  $C_{4.00\frac{1}{4}}$  (chosen as the z-axis). The wave functions of the excited states are given by:

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Boundary conditions for...

$$\Phi_k^f(k) = (4N)^{-1/2} \sum_{m\alpha} \exp ikm B_{m\alpha}^f \chi_{m\alpha}^f \quad (1)$$

$k$  is the quasi-momentum of the exciton;  $m$  the number of elementary cell;  $\alpha$  the number of the molecule in the cell;  $f$  the wave function of the crystal whose molecule with the number  $m\alpha$  is in the  $f$ th excitation;  $\mu$  the number of irreducible representations, and  $N$  the number of the cells. For the stationary state of a bounded crystal linear combinations of Eq. (1) are taken where  $m_z = 1$ ,  $\alpha = 1$  is chosen as the boundary surface:

$$\Psi_f(k) = (2)^{-1/2} [\Phi_f^+(k) - \Phi_f^+(-k)], \quad \Psi_f^-(k) = -\Psi_f^+(-k). \quad (3)$$

The part of the dipole moment caused by the virtual transition in the exciton state the equation  $\vec{P}_1(\vec{r}) = \sum_k c_k \vec{P}_{0k}^{(1)}(\vec{r}) + \text{complex resistance} \quad (4)$

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Boundary conditions for...

holds, where

$$P_{0k}^{(1)}(r) = \int \Psi^* P(r) \Psi(k) d\Omega. \quad (A)$$

$\vec{P}_1(z)$  is determined by  $\vec{P}_{0k}^{(1)}(0)$  in the neighborhood of the crystal surface  $z = 0$ . This matrix element is:

$$P_{0k}^{(1)}(0) = \frac{1}{\Delta} \sum_{m,\alpha} \sin \frac{km - (2\pi + k)(4-a)}{4} P_{m,\alpha}. \quad (5)$$

Here,  $\vec{P}_{m,\alpha} = \int_V \Psi^* \vec{P}_{m,\alpha} \Psi dV$ ;  $\Delta$  is the volume of the region which is essentially smaller than the wavelength  $\lambda = 2\pi/k$  in the  $z$  direction. A summation is made over the boundary of this region. Considering the symmetry of the wave function as well as of  $(C_4)^2 P_x = -P_x$ , and  $(C_4)^2 P_y = -P_y$  one obtains:  $\vec{P}_{m,3} = -\vec{P}_{m,1}$ , and  $\vec{P}_{m,4} = -\vec{P}_{m,2}$ . Introducing this in Eq. (5) when the  $x$ -axis is directed along the dipole moment of the molecule with  $\alpha = 4$ , one obtains:  $P_{0kx}^{(1)}(0) = 0$ , and  $P_{0ky}^{(1)}(0) \neq 0$ . For the second bound-  
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Boundary conditions for...

ary with  $z = 1$ ;  $m_3 = G \gg 1$ ;  $\alpha = 3$  only  $P_{0kx}^{(1)}(1) = 0$ . Therefore, the additional boundary conditions for the crystal surface are obtained as  $P_x(0) = 0$ , and  $P_{1x}(1) = 0$  (6). The differential equations connecting  $\vec{P}_1(z, t)$  with  $\vec{E}_1(z, t)$  are  $(ik\partial/\partial t - \epsilon_0 + (i\partial\epsilon/\partial k)(\partial/\partial z))P_x(z, t) = (ia/\omega_0)E_x(z, t)$ ;  $(ik\partial/\partial t - \epsilon_0 - (i\partial\epsilon/\partial k)(\partial/\partial z))P_y(z, t) = (ia/\omega_0)E_y(z, t)$  (7).  $P_x(z, t)$  and  $P_y(z, t)$  are the right and the left circularly polarized waves. In the absence of the absorption of light in a crystal plate one has

$$\int_{V_{\text{plate}}} (ED^* - E^*D) dV = (4\pi i \omega_0 / a) (\partial\epsilon/\partial k) [|P_x(1)|^2 - |P_y(1)|^2 - |P_x(0)|^2 + |P_y(0)|^2] = 0. \text{ Hence}$$

the following boundary conditions are obtained:  $P_x(0) = P_y(0) \exp(i\sigma_0)$ ,  $P_x(1) = P_y(1) \exp(i\sigma_1)$  for  $\sigma = \text{constant}$ . When an electromagnetic wave of amplitude  $A$  is incident from vacuum to the boundary surface  $z = 0$  of a plane parallel plate there occur in the region  $z < 0$  reflected waves  $\vec{R}$  and

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in the region  $z > 1$  the waves  $\vec{D}$  transmitted through the plate. Six transverse waves can exist inside the plate. The boundary conditions are:

$$\begin{aligned} A_t + R_t &= E_t^{(1)} + E_t^{(2)} + E_t, \\ A_t - R_t &= n_1 E_t^{(1)} + n_2 E_t^{(2)} + n E_t, \\ A_\eta + R_\eta &= E_\eta^{(1)} + E_\eta^{(2)} + E_\eta, \\ A_\eta - R_\eta &= -n_1 E_\eta^{(1)} - n_2 E_\eta^{(2)} - n E_\eta, \\ E_t^{(1)} e^{ik_1 l} + E_t^{(2)} e^{ik_2 l} + E_t e^{ik l} &= D_t e^{i \frac{\omega}{v} l}, \\ n_1 E_t^{(1)} e^{ik_1 l} + n_2 E_t^{(2)} e^{ik_2 l} + n E_t e^{ik l} &= D_t e^{i \frac{\omega}{v} l}, \\ E_\eta^{(1)} e^{-ik_1 l} + E_\eta^{(2)} e^{-ik_2 l} + E_\eta e^{-ik l} &= D_\eta e^{i \frac{\omega}{v} l}, \\ n_1 E_\eta^{(1)} e^{-ik_1 l} + n_2 E_\eta^{(2)} e^{-ik_2 l} + n E_\eta e^{-ik l} &= -D_\eta e^{i \frac{\omega}{v} l}. \end{aligned} \quad (8)$$

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B101/B214

Boundary conditions for...

where  $n_i = n_i^{(1)}$  is the refractive index of the wave  $E_i^{(1)}$ , etc. Further,  $n_i^{(1)} = -n_i^{(2)}$ ;  $n_i^{(2)} = -n_i^{(1)}$ ;  $n_i = -n_i$ ;  $k_i = n_i \omega / c$ . The refractive indices without numerical index are real in the neighborhood of the exciton resonance frequency  $\omega_0$ . The additional boundary conditions are:

$$\left. \begin{aligned} (n_1^2 - \epsilon')(E_i^{(1)} + E_i^{(2)}) + (n_2^2 - \epsilon')(E_i^{(2)} + E_i^{(3)}) + (n^2 - \epsilon')(E_i + E_i) &= 0, \\ (n_1^2 - \epsilon')(E_i^{(1)} e^{ik_i l} + E_i^{(2)} e^{-ik_i l}) + (n_2^2 - \epsilon')(E_i^{(2)} e^{ik_i l} + E_i^{(3)} e^{-ik_i l}) + \\ + (n^2 - \epsilon')(E_i e^{ik_i l} + E_i e^{-ik_i l}) &= 0. \end{aligned} \right\} \quad (9)$$

With the help of Eqs. (8) and (9) the amplitudes of the reflected, transmitted and the inner waves can be calculated from the amplitude of the incident wave. In the case of strong absorption of light the equations for the reflected waves are:

$$\left. \begin{aligned} R_i &= \frac{1 - n_2}{1 + n_2} A_i, \\ R_n &= \frac{n_1 + n + n_1 n - \epsilon'}{n_1 + n - n_1 n - \epsilon'} A_i - 2 \frac{n_2^2 - \epsilon'}{(1 + n_2)(n_1 + n - n_1 n - \epsilon')} A_i. \end{aligned} \right\} \quad (10)$$

Card 6/8

S/181/61/003/005/013/042  
B101/B214

Boundary conditions for...

The amplitude of the reflected left polarized wave depends on the amplitude of the incident right polarized wave. For the incidence of a left polarized wave ( $A_0 = 0$ ) the amplitude of the transmitted wave appearing in vacuum satisfies:

$$\left. \begin{aligned} D_0 &= a \exp \left[ -i \left( k_0 + \frac{\omega}{c} \right) l - k'l \right] + a_1 \exp \left[ -i \left( k_{10} + \frac{\omega}{c} \right) l - k'_1 l \right], \\ D_1 &= b \exp \left[ -i \left( k_0 + \frac{\omega}{c} \right) l - k'l \right] + b_1 \exp \left[ -i \left( k_{10} + \frac{\omega}{c} \right) l - k'_1 l \right], \\ a &= -\frac{n_2 + n - n_1 n - \epsilon'}{n_1 + n - n_1 n - \epsilon'} b, \quad a_1 = \frac{n_2 + n_1 - n_2 n_1 - \epsilon'}{n_1 + n - n_1 n - \epsilon'} b_1, \\ b &= -\frac{2(\epsilon' - n_1^2)(n_2 - n)}{(1 + n_2)(n_1 + n - n_1 n - \epsilon')(n_1 - n)} A_0, \\ b_1 &= -\frac{2(\epsilon' - n^2)(n_2 - n_1)}{(1 + n_2)(n_1 + n - n_1 n - \epsilon')(n_1 - n)} A_0. \end{aligned} \right\} \quad (11)$$

for the incidence of a right polarized wave ( $A_0 = 0$ ):  $D_0 = c \exp \left[ -i \left( k_0 + \frac{\omega}{c} \right) l - k'l \right] + c_1 \exp \left[ -i \left( k_{10} + \frac{\omega}{c} \right) l - k'_1 l \right] + c_2 \exp \left[ i \left( k_{20} - \frac{\omega}{c} \right) l - k'_2 l \right]$ ;  $D_1 = d \exp \left[ -i \left( k_0 + \frac{\omega}{c} \right) l - k'l \right] + d_1 \exp \left[ -i \left( k_{10} + \frac{\omega}{c} \right) l - k'_1 l \right]$  (13).  
Card 7/8

23108

S/181/61/003/005/013/042

B101/B214

Boundary conditions for...

The coefficients  $\alpha$ ,  $\alpha_1$ ,  $\alpha_2$ ,  $d$  and  $d_1$  are proportional to the amplitude  $A_\xi$  and can be expressed by the refractive indices analogously to Eq. (11).

The frequency region in which anomalous waves appear is larger in the optically active crystals compared to that in the crystals not optically active. There are 9 Soviet-bloc references.

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechnikova  
(Odessa State University imeni I. I. Mechnikov)

SUBMITTED: June 28, 1960 (initially)  
December 26, 1960 (after revision)

Card 8/8

S/058/63/000/001/379/120  
A160/A101

The translation symmetry and the...

wave functions which do not appear to be the eigenfunctions of the translation operator.

M. Krivoglaз

[Abstracter's note: Complete translation]

Card 2/2

T9VIRKO, Yu.A.

Theory of circular dichroism in optically active crystals.  
Ukr. fiz. zhur. 6 no.4:570-572 J1-Ag '61. (MIRA 14:9)

1. Odesskiy gosudarstvennyy universitet im. I.I. Mechnikova.  
(Dichroism) (Crystals—Optical properties)

34424  
S/185/61/006/006/001/030  
D299/D304

24,3950

AUTHOR: Tsvirko, Yu.A.

TITLE: Anomalous anisotropy and circular dichroism of optically active crystals in the exciton-absorption region

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961,  
725 - 727

TEXT: According to calculations, the effect of anomalous anisotropy should be considerable in uniaxial, optically-active crystals, whose optical axis is perpendicular to the crystal faces. If however it is taken into consideration that the faces of a real crystal are not ideal planes, (assuming these planes to be composed of step-like portions), then the total amplitudes of reflected- and transmitted  $\xi$ -waves, depends on the amplitude of the incident  $\xi$ -wave only. The same applies to the  $\eta$ -wave. Hence such a crystal exhibits no anomalous anisotropy. But the non-ideal character of the crystalline planes leads to another effect in the region of exciton absorption, namely circular dichroism. The light absorption is for- X

Card 1/3

S/185/61/006/006/001/030  
D299/D304

Anomalous anisotropy and ...

mally taken into account by introducing small imaginary terms in the formulas for the refraction indices. In the case of crystals with principal optical axis of fourth order, the ratio of the intensities of  $\xi$ - and  $\eta$ -waves which passed through the crystal, is:

$$\frac{I_{\xi}}{I_{\eta}} = \left| \frac{b}{a} \right|^6 \exp(-4\mu l),$$

(1) ✓

where  $l$  is the thickness of the plane-parallel crystal plate,  $\mu$  is related to the imaginary term of the refraction index  $n$ ;  $|b/a| < 1$ , and depends on the frequency of the light. A formula, analogous to (1), holds in the case of a principal optical axis of third- or sixth order. The ratio of the coefficients of absorption of waves with different circular polarization equals 3 or 5 in uniaxial crystals. The frequency range in which the crystals exhibit dichroism, is proportional to the width of the exciton zone  $\Delta E$  (without taking into account lag), being equal to  $15 \text{ cm}^{-1}$  for  $\Delta E \approx 0.1 \text{ ev}$ . The experiments conducted (by other investigators) with natrium-uranyl-acetate crystals, yielded absorption-coefficient ratios which are

Card 2/3



Anomalous anisotropy and ...

S/185/61/006/006/001/030  
D299/D304

in qualitative agreement with the above theory. An interpretation of circular dichroism was also proposed by V.M. Agranovich (Ref. 7: ETT, 2, 1197, 1960, UFN, 71, 141, 1960); his assumptions are however not substantiated and hence his explanation of circular dichroism is incorrect. There are 7 Soviet-bloc references.

ASSOCIATION: Odes'kyi derzhuniversytet im. I.I. Mechnykova (Odessa University of State im. I.I. Mechnykov)

x

Card 3/3

24.7000

S/181/62/004/004/002/042  
B108/B102

AUTHOR: Tsvirko, Yu. A.

TITLE: Excitation of mechanical exciton waves with an electromagnetic wave field on the surface of an optically active crystal

PERIODICAL: Fizika tverdogo tela, v. 4, no. 4, 1962, 846 - 850

TEXT: The propagation of electromagnetic waves through an uniaxial, optically active crystal plate ( $D_4^3$  symmetry) is considered. The surfaces are assumed to be not monomolecular so that the additional boundary conditions accounting for spatial dispersion also contain mechanical exciton states. The wave function of an exciton state,  $\psi = \sum a(t) \chi(x, y, z)$ ,  $\sqrt{A}$  is considered a perturbation in the wave function of the crystal interacting with the electromagnetic wave. The amplitudes of the mechanical exciton waves are equal to those of dipole oscillations. These mechanical exciton waves are generated directly by the field of light waves on the crystal surface leading to considerable afterglow even with weak exciton absorption. S. I. Pekar, Academician AS UkrSSR, is thanked for advice.

Card 1/2

Excitation of mechanical exciton...

S/181/62/004/004/002/042  
B108/B102

There are 9 references: 8 Soviet and 1 non-Soviet. The English-language reference reads as follows: Y. Takeuti. Progr. Theor. Phys., 18, 421, 1957.

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechnikova  
(Odessa State University imeni I. I. Mechnikov)

JA

SUBMITTED: October 4, 1961

Card 2/2

L 13354-63 ENT(1)/BDS AFFTC/ASD/ESD-3/SSD LJP(C)

ACCESSION NR: AP3001264 S/0181/63/005/006/1496/1510

AUTHOR: Tsvirko, Yu. A. 57  
56

TITLE: Excitation of mechanical exciton<sup>21</sup> waves by an electromagnetic field on the surface of an optically active crystal

SOURCE: Fizika tverdogo tela, v. 5, no. 6, 1963, 1496-1510

TOPIC TAGS: screw axis, degeneracy, boundary condition, exciton, quasimomentum

ABSTRACT: The author studied uniaxial gyrotropic crystals having no screw axis of symmetry. He found that the exciton energy branches of doubly degenerate exciton zones under quasimomentum directed along the principal optic axis of such crystals differ fundamentally from similar branches of crystals having screw axes in the region of large quasimomentum. He investigated the electromagnetic waves in a plane-parallel plate with monomolecular planes perpendicular to the principal optic axis, excited by an external electromagnetic field propagated along this axis. Supplementary boundary conditions have been obtained for electromagnetic conditions. These conditions, in

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L 13354-63

ACCESSION NR: AP3001264

accord with the structure of the exciton zone, relate long-wave photoexciton waves and exciton waves to large quasimomentum within the first Brillouin zone. The author concludes that the supplementary boundary conditions proposed by V. M. Agranovich and V. L. Ginzburg (JFN, 76, 643; 77, 663, 1962) are not applicable to the gyrotropic crystals examined in this study. In investigating the role of short-wave mechanical excitons in the optics of a crystal plate, he concludes that this factor cannot be neglected in calculations involving the conservation of energy relative to exciton resonance frequencies. Orig. art. has: 1 figure and 16 formulas.

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechni-  
kova (Odessa State University)

SUBMITTED: 29Oct62

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 022

OTHER: 003

Card 2/2

L 08524-62 EWT(1)/EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HW  
 ACC NR: AP6034754 (N) SOURCE CODE: UR/0020/66/170/005/1056/1058

AUTHOR: Zakharov, V. P.; Tavirko, Yu. A.; Chugayev, V. N. 19

ORG: none 16 B

TITLE: Recrystallization of thin semiconductor films under the effect of a laser beam

SOURCE: AN SSSR. Doklady, v. 170, no. 5, 1966, 1056-1058

TOPIC TAGS: semiconductor film, amorphous germanium film, germanium film irradiation, laser irradiation, germanium film recrystallization

ABSTRACT: Amorphous germanium<sup>21</sup> films 300—1500 Å thick produced by vacuum vapor deposition on glass substrate were removed from substrates, placed on aluminum foil 150-μ thick, and irradiated with laser-beam pulses which had an energy of 1 joule and a duration of 1 msec. The beam spot on germanium film was about 0.01 mm in diameter. The foil (see Fig. 1) was provided with openings b' and c' through which the germanium film could be observed with an electron microscope. The laser beam burned hole a' in the film and foil. In openings located at a distance of up to 2 mm from a', the germanium film disintegrated completely. However, in openings located at a distance of 2—4 mm (specimen in air) or 2—8 mm (specimen in a vacuum of 0.1 mm Hg) from a',

Card 1/2

UDC: 539.216.22:621.315.592 :548.53:621.375

L 08524-67

ACC NR: AP6034754

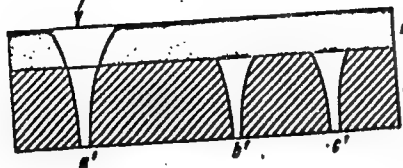


Fig. 1. Laser beam on germanium films

a' - Laser burned hole; b' and c' openings; d - germanium film; e - aluminum foil; f - laser beam.

a recrystallization of germanium took place. The disintegration and recrystallization took place only in the portion of film facing the openings. No structural changes were observed in the portions adjacent to hole a'. No recrystallization was observed when thin 300 Å films were used. Since the lattice heat conductivity of germanium is insufficient to carry within 1 msec an amount of heat which would produce a recrystallization, the phenomenon is presumed to be caused by recombination emission, which also explains why thin films are less affected than the heavy ones. Orig. art. has: 2 figures.

SUB CODE: 20, 11/ SUBM DATE: 12Jan66/ ATD PRESS: 5103

Card 2/2 LS

TSVIS, Yu. B.

"The Study of the Process of the Grinding of Cylindrical Teeth."

dissertation defended for the degree of Doctor of Technical Sciences at the  
Inst. of Machine Science.

Defense of Dissertation (Jan-Jul 1957)

Sect. of Tech. Sci.

Vest. AN SSSR, 1957, v. 27, No. 12, pp. 180-122



TSVIRKUNOV, V., sportsmen 1-go razryada

Speedboat model. Voen.znan. 35 no.6:35 Je '59.  
(MIRA 12:12)

(Motorboats--Models)

TSVIS, Yu. V. Doc Tech Sci -- (diss) "Study of the process of gear <sup>grinding</sup> sharpening  
~~of~~ <sup>of</sup> cylindrical gear wheels." Mos, 1956. 29 pp 20 cm. (Acad Sci USSR. Inst of  
Machine Studies. All-Union Sci Res Instrument Inst VNII of the Min of Machine  
Tool Building and Instrument Industry), 120 copies  
(KL, 7-57,106)

30

KORYTNYI, David Markovich; TSVIS, Yu.V., doktor tekhn.nauk, retsenzent;  
ZEVAKIN, F.N., inzh., red.; BALANDIN, A.F., red.izd-vs; SMIRNOVA,  
G.V., tekhn.red.

[Gear-cutting tools] Zuboreznyi instrument. Moskva, Gos.nauchno-  
tekhn.izd-vo mashinostroit.lit-ry, 1960.  
(Gear-cutting machines)

PETRUKHIN, Sergey Semenovich, dotsent, kand.tekhn.nauk; TSVIS, Yu.V.,  
doktor tekhn.nauk, retsenzent; IVANOVA, N.A., red.izd-va;  
EL'KIND, V.D., tekhn.red.

[Fundamentals of designing the cutting edge of metal-cutting  
tools; kinematic theory] Osnovy proektirovaniya rezhmushchey  
chasti metallovezhushchikh instrumentov; kinematicheskaya  
teoriya. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroyt.  
lit-ry, 1960. 162 p. (MIRA 13:11)  
(Metal-cutting tools)

TSVIS, Yuriy Vladimirovich, doktor tekhn. nauk; ROMANOV, N.F., kand.  
tekhn. nauk, retsenzent; MOROZOVA, M.N., inzh., red.;  
SMIRNOVA, G.V., tekhn. red.

[Profiling generating hobs] Profilirovanie rezhushchego obkat-  
nogo instrumenta. Moskva, Mashgiz, 1961. 155 p. (MIRA 15:1)  
(Metal-cutting tools)

TSVISS, Yu. V.

Cand. Tech. Sci.

Dissertation: "Investigation of the Process of Turning by the Rolling Method."

25 May 49

Moscow Machine Tool Inst

imeni I. V. Stalin

SO Vecheryaya Mosk'va  
Sum 71

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BERGER, G.S.; BULATOVA, Ye.V.; CRUZDEVA, R.Ye.; TSVIT, M.M.

Additional concentration of tantalite by flotation. TSvet.met.  
34 no.10:25-27 0 '61. (MIRA 14:10)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo  
syr'ya.

(Tantalite) (Flotation)



TSVIT, M.M., otv.red.; CHASOVIKOVA, Z.I., tekhn.red.

[Leaders of nonferrous metal production in Kazakhstan] Peredoviki  
Proizvodstva tsvetnoi metallurgii Kazakhstana. Izd.2., ispr.  
Alma-Ata, 1969. 28 p. (MIRA 13:6)

1. Alma-Ata, TSentral'nyy institut nauchno-tekhnicheskoy informatsii.  
(Kazakhstan--Nonferrous metals)

STAKOVICHENKO, N.O. [Stakovychenko, N.O.]; TSVITKIS, R.S.

Dyeing of warp-knit viscose fabrics with vat dyes by the semi-suspension method in apparatus with intermittent action.  
Leh. prom. no.4:25-27 O-D '64 (MIRA 18:1)

STAKOVICHENKO, K. A. [Stakovychenko, K. A.] ITK 11. 1988.

Use of "Procinyl"-type active dyes for knit fabrics. Len. proz.  
no. 1.37-39 JA-Mc 1988. (MIRA 1814)

TSVITSINSKIY, I. V., Cand. Tech. Sci. (diss) "Projected Transformation of Second-Order Surfaces and its Use in Descriptive Geometry," Kiev, 1961, 11 pp. (Kiev Civil Eng. Inst.) 175 copies (KL Supp 12-61, 276).

TSVIYAK, P.B.

PHASE I BOOK EXPLOITATION

SOV/4201

L'vov. Politekhnikheskiy institut

Mekhanika (Mechanics) L'vov, 1959. 69 p. (Series: Its: Doklady, tom 3, vyp. 1/2)  
900 copies printed.

Editorial Board: A.I. Andriyevskiy, Doctor of Technical Sciences, Professor;  
Ya.P. Berkman, Honored Scientist and Technologist UkrSSR, Doctor of Chemistry,  
Professor; K.B. Karandeyev, Corresponding Member, Academy of Sciences USSR and  
Academy of Sciences UkrSSR, Doctor of Technical Sciences, Professor; M.S. Komarov  
(Resp. Ed.), Doctor of Technical Sciences, Professor; V.I. Kuznetsov, Doctor of  
Geology and Mineralogy; B.F. Levitskiy (Deputy Resp. Ed.), Candidate of Tech-  
nical Sciences, Docent; V.B. Porfir'yev, Member, Academy of Sciences UkrSSR,  
Doctor of Geology and Mineralogy, Professor; V.A. Tikhonov (Resp. Secretary),  
Candidate of Technical Sciences, Docent; Tech. Ed.: T. Veselovskiy.

PURPOSE: This booklet is intended for scientific workers and engineers.

COVERAGE: The booklet contains 12 articles on vibrations, impact stresses, trans-  
mission and slider-crank mechanisms, fluid mechanics, and strength of reinforced-  
concrete beams. No personalities are mentioned. References follow several of  
the articles.

Card 1/3

SOV/4201

Mechanics

TABLE OF CONTENTS:

Glushchenko I.P. Natural Vibrations of Single-Mass Systems With Nonsymmetrical Force Characteristics	3
Ryabinin, S.N. Impact Stresses in the Kinematic Chain of an Elastic Drive System	9
Shats, Ya Yu. Relationship Between General and Individual Transmission Ratios in a Regular Single Uniaxial Transmission	15
<u>Tsviyak, P.B.</u> Problem of Investigating a Space Slider-Crank Mechanism	18
<u>Tsviyak, P.B.</u> Plotting of a Diagram of Accelerations of a Space Slider-Crank Mechanism by Methods of Descriptive Geometry	35
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Bazilevich, A.I., and B.F. Levitskiy. Analogy Between the Pressure Motion of Noncompressible Liquid and Liquid Containing Gas in a Porous Medium	38

Card 2/3

Mechanics

SOV/4201

- Bazilevich, A.I. Calculating Normal Sections of Stepped Beds of Mountain Streams 41
- Bazilevich, A.I. Reservoirs for Protecting Bottom Lands From Flooding 45
- Klimenko, F.Ye. Taking Into Account the Action of a Transverse Force on the Carrying Capacity of the Cross Section of a Beam in Bending 55
- Klimenko, F. Ye. Investigating the Work of Reinforced-Concrete Cantilever Variable-Section Elements in the Vicinity of the Maximum Moment During Bending
- Gradyuk, I.I. Carrying Capacity of Prestressed Reinforced-Concrete Elements in Bending 65

AVAILABLE: Library of Congress

Card 3/3

AC/pw/gmp  
9-2-60

TSVIYAK, P.B.

Investigating a three-dimensional crankgear. Dokl.LPI 3  
no.1/2:18-24 '59. (MIRA 13:6)  
(Crank and crankshafts)



TSVIYAK, P.B.

Using descriptive geometry methods in plotting an acceleration  
scheme for crankgears. Dokl.LPI 3 no.1/2:25-30 '59.  
(MIRA 13:6)

(Mechanical movements)

SOV/124-58-1-161

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 18 (USSR)

AUTHOR: Tsviyak, P. B.

TITLE: Contribution to the Subject of the Graphoanalytical Investigation of Spatial (Three-dimensional) Mechanisms of the First Group With Lower Pairs (K voprosu ob issledovanii i proyektirovanii prostranstvennykh mekhanizmov pervoy gruppy s nizshimi parami grafoanaliticheskim metodom)

PERIODICAL: Tr. In-ta mashinoved. AN SSSR. Seminar po teorii mashin i mekhanizmov, 1956, Vol 16, Nr 62, pp 26-42

ABSTRACT: A description of several graphical and analytical methods of analysis of spatial hinge-jointed four-bar linkages (in particular, a slide-crank mechanism).

V. N. Geminov

Card 1/1

TSVIYAK, P.B.

~~Graphoanalytic~~ Graphoanalytic method for investigating and designing three-dimensional first group mechanisms with lower pairs. Trudy Sem. po teor. mash. 16 no.62:26-42 '56. (MLRA 9:10)

(Machinery--Design)

TSVIZHBA, Yu.D., inzh.

Handles for vibropercussive instruments. Stroi. i dor.  
mash. 9 no.6:23 Je '64. (MIRA 18:11)

TSVYAKH, V.M.

Prospective agricultural electric power supply in 1970. Energ.  
i elektrotekh. prom. no.3:5-7 J1-S '64.

(MIRA 17:11)

BARSUKOV, N.A., inzh.; TSVYATKO, A.V., inzh.

Machine for flanging conical bottoms of reservoirs. Suggested by N.A.  
Barsukov, A.V. TSviatko. Rats. i izobr. predl. v stroi. no.15:24-25  
'60. (MIRA 13:9)

1. Nikolayevskiy zavod metallokonstruktsiy.  
(Reservoirs)

*TSVYATKO, KHRISTOV*  
BULGARIA/Chemical Technology. Chemical Products and Their  
Applications. Cellulose and Cellulose Products.  
Paper.

K-5

Abs Jour: Ref Zhur-Khimiya, 1958, No 1, 3268.

Author : Khristov Tsvyatko

Inst :

Title : Tobacco and Cotton Stems as Raw Materials for the Paper  
and Pulp Industries.

Orig Pub: Tezhka promishlenost, 1956, 5, No 4, 31-38.

Abstract: The feasibility of using tobacco and cotton stems for the  
production of sulfite pulp is considered. 34.27 to 35.21%  
of pulp (expressed as a percent of the oven-dry raw ma-  
terial) is obtained from tobacco stems; 28.98% is obtained  
from cotton stems. Tobacco stems may yield 65-75% of  
hemicellulose. The physical and mechanical properties of

Card : 1/2

L 17023-63

EWT(m)/BDS

AUTHOR:

EWT(1)/EWP(q)/ S/185/63/008/004/008/015

AFFTC/ASD JD

Tsvytkov, V. P. and Kravtsova, N. F.

58

TITLE: Some questions in the study of electron distribution within atoms <sup>21</sup>

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 4, April 1963, 469-478

TEXT: The authors study the scattering of copper atoms by the ionization method, and use the experimental data from this study to construct the radial distribution curve for electrons Cu and Ni atoms. They consider the possibility of applying an approximation method for plotting radial distribution curves to be used for determining the number of electrons which are weakly bound with the nucleus in solid bodies. Such a method would exhibit a relative error of 15 - 20% which, in the case of solid bodies, would be sufficient to allow gathering of additional information on the spatial distribution of electrons in atoms. It would also be useful in the study of the physical properties of electrons and the nature of the chemical bond.

ASSOCIATION: Girnychometalurgiyiny instytut (Mining and Metallurgical Institute, Komunarsk)

SUBMITTED: June 1, 1962  
Card 1/1



RODIONOV, N.S., inzh.; SHMUKLER, M.M.; TSVYLEV, I.S.

For a better utilization of the production capacities of peat  
briquet plant. Torf.prom. 27 no.6:16-19 '60.

(MIRA 13:9)

1. Gipromestprom Gosplana RSFSR.  
(Peat industry)

VAVULO, V.A., inzh.; RUSAKOV, V.V., inzh.; TSVYLEV, I.S., inzh.; CHURAYEV,  
S.P., inzh.

Peat cutting machines. Mekh.i avtom.proizv. 14 no.9:34-36  
S '60. (MIRA 13:9)

(Peat machinery)

TSVLEV, K. D..

Ekspluatatsiia elektropodvizhnogo sostava Baltiiskoi linii Oktiabr'skoi zhel. dorog.  
/ Exploitation of electric rolling stock of the Baltic line on the October railroad /  
(Elektrifikatsiia zhel-dor. transporta, 1935, no. 1, p. 14-15).

DLC: TF701.E27

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress,  
Reference Department, Washington, 1952, Unclassified.

TSVYLEV, A.S.

FUZANOV, N.P.; MEL'NIKOV, L.V.; PAUL', G.P.; CHERKASSKIY, A.S.; TSVYLEV, A.S.; YAKOBSON, A., redaktor; MUNT'YAN, T., tekhnicheskiiy redaktor.

[Course for radiotelegraph operators] Kurs radiotelegrafista.  
Moskva, Izd-vo DOSAAF, 1954. 335 p. [Microfilm] (MLRA 7:11)  
(Telegraph, Wireless)

LYALIN, P.M., inzh.; TSVYLEV, I.S., inzh.

Work of the State Institute for the Design and Planning of Fuel  
Industry on the mechanization of peat enterprises. Torf. prom.  
36 no.5:29-31 '59. (MIRA 13:1)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy toplivnoy  
promyshlennosti Gosplana RSFSR.  
(Peat machinery)

IVANOV, Ye.Ya.; TSYULEV, I.S.

New techniques used in winning peat. *Biul.tekh.-ekon.inform. no.2:7-8*  
'58. (MIRA 11:4)

'58.

(MIRA 11:4)

(Peat industry)

TSVYLEV, N.A., dotsent, kand.tekhn.nauk

Problem of rock deformations during working operations. Trudy  
NPI 49:127-134 '59. (MIRA 14:3)

1. Kafedra stroitel'stva gornyykh predpriyatiy Novocherkasskogo  
politekhnicheskogo instituta.  
(Mining geology)

TSVYLEV, N.A., dotsent, kandidat tekhnicheskikh nauk.

Establishing limits for open-pit workings in mining wide  
steeply dipping mineral deposits. Nauch. trudy NPI 32:  
3-18 '55.

(MLRA 10:2)

(Strip mining)



TSVYLEV, R.

The atomic power industry in the U.S. . Vop.ekon.no.8:130-137  
Ag '56. (United States--Atomic power industry) (MIRA 9:9)

TRIBUKH, S.L.; NAZAKOVICH, M.A.; TSVYLEVA, Ye.A.

Prevention of intoxication in the production of parathion. Gig.i  
san.no.4:16-19 Ap '54. (MLRA 7:4)

1. Iz Instituta gigiyeny truda i professional'nykh zabolevaniy  
Akademii meditsinskikh nauk SSSR.  
(Parathion) (Industrial hygiene)

TSVETOV, D.

Increasing animal feed rations in fattening poultry. Mias.ind.SSSR  
27 no.6:24-25 '56. (MLRA 10:2)

1. Moskovskiy ptitsekombinat.  
(Poultry--Feeding and feeding stuffs)

ANDRIYEVSKIY, Sergey Konstantinovich[Andriievs'kyi, S.K.], inzh.;  
TSVYAKH, V.M., inzh., retsenzent; DEREVETS', S.K., red.  
izd-va; STARODUB, T.O., tekhn. red.

[Electricity in everyday life] Elektryka v pobuti. Kyiv,  
Derzhstekhydav URSR, 1962. 118 p. (MIRA 16:6)  
(Household appliances, Electric)  
(Electric wiring)

000880

AUTHOR: Tsvyk, A. I.; Tret'yakov, O. A.

SOURCE CODE: UR/0058/88/000/008/H026/H026

TITLE: Electromagnetic wave radiation by a limited plane electron flux moving above a diffraction grating

SOURCE: Ref. zh. Fizika, Abs. 9Zh191

REF SOURCE: Radiotekhnika. Resp. mezhved. nauchno-tekhn. sb., vyp. 1, 1965, 149-154

TOPIC TAGS: electron flux, electromagnetic wave, electromagnetic wave radiation, diffraction grid

ABSTRACT: The problem of electromagnetic-wave radiation by a plane monochromatic electron flux of finite width moving above an infinitely long ribbon grid is studied. It is shown that the infinite system of linear algebraic equations, which determines the radiation field partial wave amplitudes, can be reduced to a system convenient for a numerical solution by a computer. The discrete spectrum of radiation directions is determined. A special case of realization of the radiation

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*Tsvytov, Ivan Ignat'yevich*

LOPYREV, Aleksandr Alekseyevich; TSVYTOV, Ivan Ignat'yevich; BELOSTOTSKIY,  
I.A., redaktor; OTOCHEVA, M.A., redaktor; KONYASHINA, A., tekhnicheskii redaktor.

[Manual for trolley car operators] Uchebnoe posobie dlia voditelei  
tramvaia. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva  
RSFSR, 1955.267 p. (MLRA 9:4)

(Street railways)

SOLOV'YEV, S.N.; TSYAKALO, A.G.

Container for feeding electrode rods into the bunker of an  
electrode-coating press. Sbor.rats.predl.vnedr.v proizv. no.5:40  
'60. (MIRA 14:8)

1. Zavod "Krasnyy Profintern".  
(Feed mechanisms)

AUTHOR: Tevankin, D. Ya.

SCV/20-120-5-41/67

TITLE: X-Ray Diffraction of Domains Consisting of Long Molecules  
(Rentgenovskaya difraktsiya na oblastiakh, sostoyashchikh iz dlinnykh molekul)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 5, pp.1076-1079  
(USSR)

ABSTRACT: This is a computation of the X-ray diffraction in an aggregate of domains forming an axial texture. The domains are similar to each other and consist of long molecules with axes parallel to the axis of the texture. The following cases were investigated: I. Within each domain a complete three-dimensional order prevails. The axes of the chains form a regular pattern. II. The free rotation and a displacement of the chains governed by certain rules, when the chains are free to rotate around their axes, the displacement along the axis is, however, still governed by rules. III. Free rotation and an arbitrary displacement. First the general case is investigated under the assumption that all chains in the domain can be divided into two groups of chains which are identical in translations. The course taken by the compli-

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SOV/20-120-5-41/67

X-Ray Diffraction of Domains Consisting of Long Molecules

cated calculations is outlined. The principal result of the free rotation is the limitation of the diffraction field. The oscillations of the chains within a certain angular domain about the axis of the texture limit the diffraction field. The calculations according to the formulae deduced in this paper require a knowledge of the distances between the chains and the atoms. If these quantities are known it is possible to determine the degree of order in the individual domains of the polymer by comparing the results of the calculations with those of the experiments. This problem will be studied in a later work. This paper was compiled under the supervision of A. I. Kitaygorodskiy. There are 3 references, 3 of which are Soviet.

PRESENTED: January 8, 1958, by V.A. Kargin, Member, Academy of Sciences, USSR

SUBMITTED: January 6, 1958

Card 2/3

X-Ray Diffraction of Domains Consisting of Long Molecules

SO7/20-120-5-11-07


1. Polymers--Molecular structure    2. X-ray diffraction analysis--Performance

Card 3/3

S/185/62/007/012/016/021  
D234/D308

AUTHORS: Kravtsova, N.F. and Tsveyetkov, V.P.  
TITLE: Experimental investigation of the atomic  
scattering curve of Ni  
PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7,  
no. 12, 1962, 1355 - 1360

TEXT: The atomic scattering curves of Ni and NiO  
powders were determined, taking the (220) reflection line of NaCl  
for comparison. The results were corrected for dispersion and  
temperature. For  $(\sin \theta)/\lambda > 0.4$  the f-curves coincide with those  
calculated by Hartree-Fock method. For smaller angles the Thomas-  
Fermi method is applicable. Deviation of the experimental curves  
from those obtained by the Hartree-Fock method with small angles  
can be explained by insufficient accounting for the exchange of  
outer electrons in heavy atoms, or by special properties of the  
3d shells. The number of electrons in the latter is determined  
using the  $f_0$  values obtained by Watson and Freeman, and the result  
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Experimental investigation ... S/185/62/007/012/016/021  
D234/D308

is  $6.9 \pm 0.2$  (Ni) and  $6.7 \pm 0.3$  ( $\text{Ni}^{++}$  in NiO). There are 2 figures.

ASSOCIATION: Komunars'kyi hirnychometalurhiynyy instytut  
(Kommunarsk Institute of Mining and Metallurgy) ✓

SUBMITTED: May 31, 1962

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